Prepared by:
Douglas K. Miller

Undergraduate research students (UNC Asheville):
Jackson Coley, Kaitlyn Duckett, Drew Griffith, Nick Kleis, Sara Michaelson, Wayne Morley, Brooks Rogow

Volunteer assistants (other):
Don Elliott (Waynesville Watershed Field Manager), Jake Engelkins

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Status

Table 1: Gauge visits during the autumn 2022 campaign. Comments: DD=gauge data download, MN=general gauge maintenance (cleaning, re-level), CA= rain gauge calibration, CV= vegetation clearing, and BR = data logger battery replacement.

Date	Gauges Visited	Technicians	Comments
7 Oct 2022	100T, 111, 112, 311	Doug	DD, MN, CV, BR
8 Oct 2022	304, 307	Doug, Drew, Nick	DD, MN, CV, BR
14 Oct 2022	101, 102, 103, 108	Doug, Drew	DD, MN, CV, BR
15 Oct 2022	305, 309, 310	Doug, Wayne	DD, MN, CV, BR
21 Oct 2022	107, 109, 104	Doug, Nick	DD, MN, CV, BR
22 Oct 2022	301, 302, 300	Doug, Jackson	DD, MN, CV, BR
28 Oct 2022	3; 11; 106	Doug, Wayne	DD, MN, CV, BR
29 Oct 2022	105, 110, 4	Doug, Sara, Kaitlyn [Jake]	DD, MN, CV, BR
4 Nov 2022	2; 5; 8; 10	Doug	DD, MN, CV, BR
5 Nov 2022	303s, 306, 308	Doug, Brooks, Jackson	DD, MN, CV, BR

Gauge visitation in support of the Duke Great Smoky Mountain Rain Gauge Network (GSMRGN) during the autumn 2022 occurred over ten days spanning a period of five weeks in October - November 2022. The primary purpose of the visits in the autumn 2022 was [1] to perform downloads of gauge tip observations since the previous gauge visits in the summer 2022, [2] to complete maintenance tasks, [3] to clear vegetation and tree limbs, [4] to replace ALL data logger lithium batteries in anticipation of cold winter weather, when lithium batteries respond with a drop in operating voltage, and [5] to replace faulty data loggers at four sites. Nine technicians and volunteers (listed on the front page) made the visits and performed the required work. It is important to note that the volunteers were NOT directly involved in any critical gauge visit tasks, but were volunteering primarily to assist with personal safety should someone get injured during a particular series of gauge visits.

The general tasks completed at **every** gauge visit consist of (1) gauge data download from the data loggers [DD in Table 1], (2) general gauge maintenance and ML1 logger condition monitoring [MN in Table 1], (3) to clear vegetation and tree limbs [CV in Table 1] and, (4) to replace ALL data logger lithium batteries [BR in Table 1] in anticipation of cold winter weather, when lithium batteries respond with a drop in operating voltage. A specialized task was the replacement of four AA batteries of the T/RH sensor at the fire tower on Mount Sterling (near g#310) to record air temperature during the cool season, and the replacement of older generation data loggers [task (5)] at gauges #100T (Purchase Knob), #112 (Ore Knob), #108 (Utah Mountain) and #105 (Hultquist property). Task (1) merely required a serial port link between the field study laptop and the gauge data logger and consisted of pulling the data (often in files having raw [*.txt] and CSV formats) onto a desktop folder on the laptop, checking for completeness of the data, and comparing the data logger time and date to the actual GPS time and date (making a screen capture of the time comparison). The standard that has been chosen for this study is to maintain the clocks on Eastern Daylight Time, since most of the “warm” precipitation will be occurring during the season when EDT is in effect. Most ML1-FL data logger times have been adjusted (using “TA” command) during previous gauge visits to coincide with the EDT given by the GPS locator. It was discovered that changing the logger battery makes the logger’s memory lose track of when the most recent “TA=hh:mm:ss” adjustment was made and gives the “At least 12hrs must elapse!” error when the “TA=hh:mm:ss” command is tried immediately after changing the battery. The solution is to update the time

using TA ("TA=hh:mm:ss" command) **before** changing the battery. Changing the battery can cause the just-adjusted time to go bad, so another time update is needed AFTER the battery change is complete using the "T=hh:mm:ss" command, rather than "TA". Another item learned regards the WinComlog software parameter "INC=0.2/01", which specifies that the bucket holds 0.2 mm worth of accumulation per tip and every tip is counted. If the second number (integer) of the "INC" setting is anything other than "01", not every bucket tip will get counted [!!!!, "Why do we even have this lever?"]. The former problem is likely the explanation for the logger error message ["At least 12hrs must elapse!"] that happened during the visits to g#107, g#109, and g#302. A "new" data logger (old g#307; tree) replaced the old logger at g#311 (Big Creek) due to the replaced logger being a battery hog (drained the battery more quickly than what is expected). The data logger at g#309 (Mt Sterling Ridge, nearest Big Cataloochee Mountain) was completely drained by the time of the 15 October 2022 visit (record ceased after 10 September 2022 rain event). The battery was replaced. The video camera at g#309 was inoperable and needs replacing in the spring 2023. Task (2) required the cleaning of debris from the funnel filter, cleaning the tipping buckets of debris (if necessary), cleaning the gauge drain ports and siphon, re-leveling the gauge if it has come unleveled, and fixing or replacing the gauge mesh if it had been damaged. Task (3) consisted of cutting briars, tree branches, rhododendron, and mountain laurel within a five foot radius of the gauge using clippers or a saw. Task (4) was completed successfully in every data logger at each of the rain gauge locations. The data loggers at the two gauges listed above will need to be replaced in 2023 if the TA adjustments fail to improve between the fall 2022 visit and visits in the future.

The rain gauge and base of g#010 was found completely tipped over (presumably by a bear) during the visit on 4 November 2022. The tip observations indicated that the knock-over likely happened on the morning of 14 October 2022. The gauge and base were releveled using rocks and the gauge base nut/bolt leveling system. The rain gauge and base of g#005 was found partially tipped (presumably by a bear) during the visit on 4 November 2022. The gauge was releveled. Bring fence materials to build fence and surround g#005 in spring 2023 while doing calibration trials. Also, cut down nearby trees nearly encroaching on gauge's sky view. The time adjust (TA) at two locations having ML1 loggers was set to "off" [g#107 and g#109] during the most recent visits. It is hoped the "TA" discovery (set TA time adjust before removing battery) noted previously will help improve the times of the loggers at these two gauges.

The weather during the rain gauge visit campaign in fall 2022 was ideal (likely due to the ever-increasing drought observed in the region) and caused no postponements of the originally-scheduled visits. We continue to inquire with Mr. Edwin Warren, of Duke Power, on the possibility of gaining access to weather station observations taken near the Mount Sterling fire tower, next to g#310 (~5,800 feet ASL). The weather observations will help discern the source of tips in the cool season; rain or melting snow. Phil Ferguson [Phil@thesellersagency.com] is the landowner on which g#106 rests. Please contact him when visiting in the spring 2023.

Details of every gauge visit along with precipitation raw and CSV files can be found via Google Drive https://drive.google.com/file/d/1BhSFrlvK6bWIdomxdEoKmz_kNtkKIUg-/view?usp=share_link which contains sub-folders for each gauge that consist of the individual data files (often having at least two different formats), pictures taken at the gauge site during the visit, screenshots of the GPS (laptop) and ML1 logger time comparison, and a MS Word document that mirrors the notes made in the field journal during each visit.

Noteworthy precipitation events of July – September 2022 as observed at KAVL are highlighted in yellow in **Appendix A**. Of particular relevance is the dearth of rainfall in July and August 2022, and a return to the intensifying drought after 10 September 2022.

Plans for the spring months of 2023

Table 2: Planned gauge visits during the spring 2023 campaign. DD=gauge data download, MN=general gauge maintenance (cleaning, re-level), CA= rain gauge calibration, CV= vegetation clearing, and BR = data logger battery replacement.

Date	Gauges Visited	Technicians	Comments
3/??/2023	3; 11	Doug, one student	DD, MN, CA, CV
3/??/2023	2; 5; 8	Doug, one student	DD, MN, CA, CV
3/??/2023	100T, 105, 104	Doug, one student	DD, MN, CA, CV
3/??/2023	300, 308	Doug, two students	DD, MN, CA, CV
4/??/2023	106, 10	Doug, one student	DD, MN, CA, CV
4/??/2023	304, 307	Doug, two students	DD, MN, CA, CV
4/??/2023	4, 108, 109	Doug, one student	DD, MN, CA, CV
4/??/2023	311, 110	Doug, one student	DD, MN, CA, CV
4/??/2023	111, 112, 107	Doug, one student	DD, MN, CA, CV
5/??/2023	303s, 306	Doug, two students	DD, MN, CA, CV
5/??/2023	101, 102, 103	Doug, two students	DD, MN, CA, CV
5/??/2023	305, 309, 310	Doug, two students	DD, MN, CA, CV
5/??/2023	301, 302	Doug, two students	DD, MN, CA, CV

Gauge visitation in support of the Duke GSMRGN during the spring 2023 will occur over at least thirteen days spanning March through mid-May 2023. The primary purpose of the visits will be to download precipitation observations that were made since the previous gauge visits in October - November 2022 [DD in Table 2], perform maintenance and check if the ML1 logger times have drifted between visits and make the corresponding needed adjustments [MN in Table 2], calibrate every rain gauge [most recent calibration was in spring 2022, CA in Table 2], and clear vegetation (and tree branches) from overhanging gauges [CV in Table 2]. Calibrations are scheduled at **ALL** rain gauge locations during the spring season due to the increased availability of daylight hours (over autumn) and to a seasonal (March, April, May) minimum in precipitation observed in the Pigeon River Basin (WaF, February 2018).

Details of every gauge visit along with each gauge precipitation record will be posted online and shall contain sub-folders for each gauge that consist of the individual data files (often having at least two different formats), pictures taken at the gauge site during the visit, screenshots of the GPS (laptop) and ML1 logger time comparison, and a MS Word document that mirrors the notes made in the field journal during the visit.

The current technician roster during the 2022-2023 academic year consists of Jackson Coley, Kaitlyn Duckett, Daniel Fairchild, Drew Griffith, Nick Kleis, Sara Michaelson, Wayne Morley, Brooks Rogow, Jacob Sonney, and Josh Ward. New undergraduate research students at UNC Asheville will be recruited as field technicians for the Duke GSMRGN project in the spring 2023. Daniel Fairchild will be graduating in December 2022.

Table 3: The Duke Great Smoky Mountain Rain Gauge Network is currently (valid as of 18 November 2022) composed of 32 tipping bucket rain gauges.

Gauge #	Location	Latitude	Longitude	Altitude
RG002	Lickstone Bald	35°25.5’ N	82°58.2’ W	5680 ft.
RG003	High Top	35°23.0’ N	82°54.9’ W	5280 ft.
RG004	Lickstone Ridge S	35°22.0’ N	82°59.4’ W	6305 ft.
RG005	Deep Gap	35°24.5’ N	82°57.8’ W	4986 ft.
RG008	Double Summer Gap	35°22.9’ N	82°58.4’ W	5700 ft.
RG010	Beaty Summer Gap	35°27.3’ N	82°56.8’ W	4849 ft.
RG011	near Deep Gap	35º23.7’ N	82º54.9’ W	4081 ft.
RG100T	Purchase Knob	35°35.1’ N	83°04.3’ W	4905 ft.
RG101	The Swag	35°34.5’ N	83°05.2’ W	4986 ft.
RG102	Hemphill Bald	35°33.8’ N	83°06.2’ W	5365 ft.
RG103	JR Property	35°33.2’ N	83°07.0’ W	5539 ft.
RG104	Cat. Ski Area	35˚33.2’ N	83˚05.2’ W	5208 ft.
RG105	KH Property	35°38.0’ N	83°02.4’ W	4412 ft
RG106	Pinnacle Ridge	35°25.9’ N	83°01.7’ W	3969 ft
RG107	Lookout Point	35°34.0’ N	82°54.4’ W	4459 ft
RG108	Utah Mountain	35°33.2’ N	82°59.3’ W	4188 ft
RG109	Eaglesnest Ridge	35°29.7’ N	83°02.4’ W	4922 ft
RG110	JH Property	35°32.8’ N	83°08.8’ W	5128 ft
RG111	Hurricane Ridge	35°43.7’ N	82°56.8’ W	4573 ft
RG112	Ore Knob	35°45.0’ N	82°57.8’ W	3884 ft
RG300	Camel Hump Knob	35°43.5’ N	83°13.0’W	5110 ft
RG301	Mt Guyot	35°42.3’N	83°15.3’W	6570 ft
RG302	Snake Den Ridge	35°43.2’N	83°14.8’W	6104 ft
RG303s	Mt Cammerer	35°45.7’N	83°09.7’W	4887 ft
RG304	Big Cataloochee	35°40.2’N	83°10.9’W	5971 ft

RG305	Mt Sterling 1	35°41.4’N	83°07.9’W	5349 ft
RG306	Sunup Knob	35°44.7’N	83°10.2’W	5039 ft
RG307	Balsam Mountain	35°39.0’N	83°11.9’W	5327 ft
RG308	Cosby Knob	35°43.8’ N	83°10.9’W	4826 ft
RG309	Mt Sterling 2	35°40.9’N	83°09.0’W	5262 ft
RG310	Mt Sterling 3	35°42.1’N	83°07.3’W	5761 ft
RG311	Big Creek	35°45.9’N	83°08.4’W	3398 ft

Appendix A

These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - http://www.ncdc.noaa.gov.

WFO Monthly/Daily Climate Data

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CXUS52 KGSP 011551
CF6AVL
PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

                                                STATION:   ASHEVILLE NC
                                                MONTH:     JULY
                                                YEAR:      2022
                                                LATITUDE:   35 25 N
                                                LONGITUDE:  82 33 W
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TEMPERATURE IN F:							:PCPN:	SNOW:	WIND				:SUNSHINE:		SKY		:PK WND	
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
									12Z	AVG	MX	2MIN						
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	83	64	74	0	0	9	T	0.0	0	2.9	15	130	M	M	4	3	23	130
2	88	66	77	2	0	12	T	0.0	0	4.7	18	170	M	M	5	13	27	170
3	87	67	77	2	0	12	0.08	0.0	0	5.0	20	330	M	M	2	13	26	330
4	87	67	77	2	0	12	0.01	0.0	0	4.0	12	160	M	M	7	13	16	170
5	90	69	80	5	0	15	0.18	0.0	0	4.6	14	340	M	M	6	13	22	330
6	88	67	78	3	0	13	T	0.0	0	4.2	18	220	M	M	4	13	25	220
7	89	69	79	4	0	14	0.03	0.0	0	7.3	18	350	M	M	4	13	26	360
8	89	69	79	4	0	14	0.01	0.0	0	7.4	26	340	M	M	2	3	38	330
9	85	67	76	1	0	11	T	0.0	0	5.7	15	330	M	M	4		22	340
10	74	64	69	-6	0	4	0.10	0.0	0	2.0	12	130	M	M	9	1	15	130
11	81	63	72	-3	0	7	0.00	0.0	0	4.7	15	140	M	M	9	1	22	140
12	88	64	76	1	0	11	0.01	0.0	0	5.6	25	320	M	M	2	13	31	320
13	82	64	73	-2	0	8	0.35	0.0	0	4.6	15	320	M	M	3	138	21	320
14	82	64	73	-2	0	8	0.00	0.0	0	5.1	16	340	M	M	1		20	340
15	84	59	72	-3	0	7	T	0.0	0	3.1	12	210	M	M	3		16	210
16	86	64	75	0	0	10	T	0.0	0	3.6	10	200	M	M	3	123	15	230
17	88	64	76	1	0	11	0.01	0.0	0	2.5	16	160	M	M	3	123	20	230
18	89	66	78	3	0	13	0.40	0.0	0	5.8	17	200	M	M	2	138	26	220
19	85	65	75	0	0	10	0.01	0.0	0	2.6	21	310	M	M	2	3	26	310
20	85	65	75	0	0	10	0.01	0.0	0	4.4	15	170	M	M	4	13	22	190
21	89	69	79	4	0	14	0.02	0.0	0	5.2	18	330	M	M	3	3	22	340
22	90	67	79	4	0	14	0.00	0.0	0	3.8	12	170	M	M	2	12	15	340
23	92	64	78	3	0	13	0.00	0.0	0	3.9	13	210	M	M	0	3	19	210
24	90	67	79	4	0	14	0.00	0.0	0	5.6	12	180	M	M	0	3	16	210
25	85	68	77	2	0	12	0.17	0.0	0	2.8	18	180	M	M	2	13	22	180
26	85	69	77	2	0	12	0.04	0.0	0	3.8	18	190	M	M	5	12	27	190
27	89	69	79	4	0	14	0.11	0.0	0	3.7	15	340	M	M	3	138	18	340
28	89	68	79	4	0	14	0.83	0.0	0	2.6	15	340	M	M	4	13	20	330
29	88	69	79	4	0	14	0.00	0.0	0	4.7	15	330	M	M	5	3	19	340
30	82	69	76	1	0	11	1.33	0.0	0	5.3	12	330	M	M	5	13	14	340
31	84	68	76	1	0	11	0.19	0.0	0	3.7	16	270	M	M	7	1	20	260
SM	2673	2054			0	354	3.89	0.0		134.9			M		115			

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================================================================================
AV 86.2 66.3                                4.4 FASTST   M    M   4    MAX(MPH)
                                 MISC ---->    26 340                  38 330
================================================================================
NOTES:
# LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

                                          STATION:   ASHEVILLE NC
                                          MONTH:     JULY
                                          YEAR:      2022
                                          LATITUDE:   35 25 N
                                          LONGITUDE:  82 33 W

[TEMPERATURE DATA]      [PRECIPITATION DATA]       SYMBOLS USED IN COLUMN 16

AVERAGE MONTHLY: 76.2   TOTAL FOR MONTH:   3.89    1 = FOG OR MIST
DPTR FM NORMAL:   1.1   DPTR FM NORMAL:   -0.78    2 = FOG REDUCING VISIBILITY
HIGHEST:    92 ON 23    GRTST 24HR  1.36 ON 30-31     TO 1/4 MILE OR LESS
LOWEST:     59 ON 15                               3 = THUNDER
                        SNOW, ICE PELLETS, HAIL    4 = ICE PELLETS
                        TOTAL MONTH:   0.0 INCH    5 = HAIL
                        GRTST 24HR  0.0            6 = FREEZING RAIN OR DRIZZLE
                        GRTST DEPTH:  0            7 = DUSTSTORM OR SANDSTORM:
                                                       VSBY 1/2 MILE OR LESS
                                                   8 = SMOKE OR HAZE
[NO. OF DAYS WITH]      [WEATHER - DAYS WITH]      9 = BLOWING SNOW
                                                   X = TORNADO
MAX 32 OR BELOW:   0    0.01 INCH OR MORE:  19
MAX 90 OR ABOVE:   4    0.10 INCH OR MORE:   9
MIN 32 OR BELOW:   0    0.50 INCH OR MORE:   2
MIN  0 OR BELOW:   0    1.00 INCH OR MORE:   1

[HDD (BASE 65) ]
TOTAL THIS MO.     0    CLEAR  (SCALE 0-3)  15
DPTR FM NORMAL     0    PTCLDY (SCALE 4-7)  14
TOTAL FM JUL 1     0    CLOUDY (SCALE 8-10)  2
DPTR FM NORMAL     0

[CDD (BASE 65) ]
TOTAL THIS MO.   354
DPTR FM NORMAL    41    [PRESSURE DATA]
TOTAL FM JAN 1   664    HIGHEST SLP 30.20 ON 31
DPTR FM NORMAL    48    LOWEST  SLP 29.82 ON 21

[REMARKS]
#FINAL-07-22#
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000
CXUS52 KGSP 010817
CF6AVL
PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: ASHEVILLE NC
MONTH: AUGUST
YEAR: 2022
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

TEMPERATURE IN F:							:PCPN:		SNOW:	WIND			:SUNSHINE:		SKY		:PK WND	
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
									12Z	AVG	MX	2MIN						
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	76	69	73	-2	0	8	0.22	0.0	0	3.2	12	330	M	M	5	1	14	330
2	88	67	78	3	0	13	0.00	0.0	0	7.1	17	340	M	M	0		22	330
3	86	64	75	0	0	10	0.15	0.0	0	4.4	30	220	M	M	2	13	39	220
4	86	63	75	0	0	10	T	0.0	0	5.3	14	180	M	M	4	13	18	170
5	85	67	76	1	0	11	0.04	0.0	0	2.6	15	160	M	M	3	13	18	150
6	83	65	74	-1	0	9	0.17	0.0	0	2.2	15	230	M	M	5	1238	22	350
7	85	66	76	1	0	11	T	0.0	0	3.9	13	200	M	M	5	13	15	190
8	86	66	76	1	0	11	0.00	0.0	0	3.3	13	250	M	M	2	3	17	240
9	85	67	76	1	0	11	T	0.0	0	2.5	16	200	M	M	3	13	19	210
10	81	66	74	-1	0	9	0.01	0.0	0	4.1	14	340	M	M	5	13	16	330
11	81	66	74	-1	0	9	0.64	0.0	0	4.3	14	360	M	M	8	13	19	360
12	83	66	75	1	0	10	0.00	0.0	0	7.0	18	330	M	M	4		25	340
13	79	61	70	-4	0	5	0.00	0.0	0	3.0	10	180	M	M	6		14	180
14	80	62	71	-3	0	6	T	0.0	0	3.9	14	180	M	M	5		18	180
15	84	64	74	0	0	9	0.04	0.0	0	2.6	22	330	M	M	5	1	31	320
16	73	64	69	-5	0	4	0.21	0.0	0	2.5	9	170	M	M	9	1	12	160
17	77	63	70	-4	0	5	0.01	0.0	0	3.3	15	220	M	M	7	1	18	220
18	78	63	71	-3	0	6	T	0.0	0	3.0	13	170	M	M	7		16	170
19	74	65	70	-4	0	5	0.07	0.0	0	3.0	12	140	M	M	9	1	16	140
20	80	64	72	-2	0	7	0.33	0.0	0	2.7	13	190	M	M	7	1	16	160
21	79	65	72	-2	0	7	1.25	0.0	0	2.3	16	200	M	M	8	13	21	210
22	80	63	72	-2	0	7	0.10	0.0	0	4.1	15	330	M	M	5	12	17	320
23	83	60	72	-2	0	7	0.00	0.0	0	3.2	13	310	M	M	2		17	320
24	81	62	72	-1	0	7	0.50	0.0	0	1.8	13	200	M	M	4		17	210
25	81	65	73	0	0	8	0.22	0.0	0	3.9	14	180	M	M	6	13	18	170
26	83	67	75	2	0	10	0.81	0.0	0	4.2	21	20	M	M	5	123	33	10
27	83	65	74	1	0	9	0.00	0.0	0	3.3	9	200	M	M	5	1	12	330
28	84	64	74	1	0	9	T	0.0	0	2.7	13	170	M	M	5	123	17	160
29	84	64	74	1	0	9	T	0.0	0	2.3	10	160	M	M	3	12	14	160
30	85	65	75	3	0	10	0.04	0.0	0	2.3	17	340	M	M	4	1238	27	330
31	84	61	73	1	0	8	0.00	0.0	0	5.5	14	330	M	M	0		17	10
SM	2537	1999			0	260	4.81	0.0		109.5			M		148			
AV	81.8	64.5								3.5	FASTST		M	M	5		MAX(MPH)	
									MISC ---->		30	220					39	220

NOTES:
LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

STATION: ASHEVILLE NC
MONTH: AUGUST
YEAR: 2022
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

[TEMPERATURE DATA]

AVERAGE MONTHLY: 73.2
DPTR FM NORMAL: -0.8
HIGHEST: 88 ON 2
LOWEST: 60 ON 23

[PRECIPITATION DATA]

TOTAL FOR MONTH: 4.81
DPTR FM NORMAL: -0.23
GRTST 24HR 1.25 ON 20-21

SNOW, ICE PELLETS, HAIL
TOTAL MONTH: 0.0 INCH
GRTST 24HR 0.0
GRTST DEPTH: 0

SYMBOLS USED IN COLUMN 16

1 = FOG OR MIST
2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
3 = THUNDER
4 = ICE PELLETS
5 = HAIL
6 = FREEZING RAIN OR DRIZZLE
7 = DUSTSTORM OR SANDSTORM: VSBY 1/2 MILE OR LESS
8 = SMOKE OR HAZE
9 = BLOWING SNOW
X = TORNADO

[NO. OF DAYS WITH]

MAX 32 OR BELOW: 0
MAX 90 OR ABOVE: 0
MIN 32 OR BELOW: 0
MIN 0 OR BELOW: 0

[WEATHER - DAYS WITH]

0.01 INCH OR MORE: 17
0.10 INCH OR MORE: 11
0.50 INCH OR MORE: 4
1.00 INCH OR MORE: 1

[HDD (BASE 65)]

TOTAL THIS MO. 0
DPTR FM NORMAL 0
TOTAL FM JUL 1 0
DPTR FM NORMAL 0

CLEAR (SCALE 0-3) 6
PTCLDY (SCALE 4-7) 23
CLOUDY (SCALE 8-10) 2

[CDD (BASE 65)]

TOTAL THIS MO. 260
DPTR FM NORMAL -19
TOTAL FM JAN 1 924
DPTR FM NORMAL 29

[PRESSURE DATA]

HIGHEST SLP 30.29 ON 6
LOWEST SLP 29.81 ON 15

[REMARKS]
#FINAL-08-22#

000
CXUS52 KGSP 011438
CF6AVL
PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: ASHEVILLE NC
MONTH: SEPTEMBER
YEAR: 2022
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

TEMPERATURE IN F:							:PCPN:		SNOW:	WIND			:SUNSHINE:		SKY		:PK WND	
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
									12Z	AVG	MX	2MIN						
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	83	57	70	-2	0	5	0.00	0.0	0	3.8	12	170	M	M	1		16	170
2	81	61	71	-1	0	6	T	0.0	0	3.2	12	160	M	M	5	1	17	170
3	79	67	73	1	0	8	0.02	0.0	0	2.8	10	160	M	M	7	1	14	160
4	74	67	71	0	0	6	0.50	0.0	0	2.9	10	150	M	M	9	1	15	150
5	75	67	71	0	0	6	1.94	0.0	0	1.6	14	340	M	M	10	12	17	340
6	81	66	74	3	0	9	0.07	0.0	0	5.1	12	340	M	M	5	1	16	360
7	81	66	74	3	0	9	T	0.0	0	6.8	16	340	M	M	4	3	22	340
8	78	62	70	0	0	5	T	0.0	0	4.6	10	170	M	M	6		14	160
9	74	63	69	-1	0	4	0.00	0.0	0	2.7	10	130	M	M	7		16	130
10	67	61	64	-6	1	0	1.06	0.0	0	2.4	8	20	M	M	10	1	14	30
11	79	64	72	2	0	7	0.04	0.0	0	5.6	16	210	M	M	6	1	23	200
12	80	60	70	0	0	5	0.01	0.0	0	6.8	17	340	M	M	5	18	22	340
13	75	54	65	-4	0	0	0.00	0.0	0	7.8	16	340	M	M	0		22	330
14	76	52	64	-5	1	0	0.00	0.0	0	5.9	17	340	M	M	2		23	340
15	78	51	65	-4	0	0	0.00	0.0	0	2.7	10	340	M	M	1	12	16	40
16	77	51	64	-4	1	0	0.00	0.0	0	1.5	9	190	M	M	2	1	14	140
17	77	54	66	-2	0	1	0.00	0.0	0	2.2	13	170	M	M	3	12	15	160
18	78	56	67	-1	0	2	0.00	0.0	0	2.0	9	170	M	M	3	12	13	170
19	80	54	67	-1	0	2	0.00	0.0	0	4.0	15	330	M	M	2	12	20	340
20	84	58	71	4	0	6	0.00	0.0	0	4.4	16	320	M	M	1		21	330
21	87	56	72	5	0	7	0.00	0.0	0	2.2	10	320	M	M	0		12	330
22	83	57	70	4	0	5	0.02	0.0	0	7.8	24	330	M	M	3	8	37	340
23	73	49	61	-5	4	0	0.00	0.0	0	6.9	20	330	M	M	0		25	340
24	72	47	60	-6	5	0	0.00	0.0	0	2.7	13	180	M	M	1		16	180
25	78	52	65	-1	0	0	0.05	0.0	0	2.9	31	330	M	M	1		42	330
26	73	49	61	-4	4	0	0.00	0.0	0	6.8	17	340	M	M	0	1	23	330
27	68	43	56	-9	9	0	0.00	0.0	0	5.5	17	330	M	M	0		23	330
28	65	43	54	-10	11	0	0.00	0.0	0	10.3	22	340	M	M	0		29	330
29	67	42	55	-9	10	0	0.00	0.0	0	6.8	13	100	M	M	0		22	80
30	59	49	54	-10	11	0	0.56	0.0	0	11.0	26	330	M	M	8	18	35	330
SM	2282	1678			57	93	4.27	0.0		141.7			M		102			
AV	76.1	55.9								4.7	FASTST		M	M	3		MAX(MPH)	
								MISC ---->		31	330						42	330

NOTES:
LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: ASHEVILLE NC
MONTH: SEPTEMBER
YEAR: 2022
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

[TEMPERATURE DATA]

AVERAGE MONTHLY: 66.0
DPTR FM NORMAL: -2.3
HIGHEST: 87 ON 21
LOWEST: 42 ON 29

[PRECIPITATION DATA]

TOTAL FOR MONTH: 4.27
DPTR FM NORMAL: 0.14
GRTST 24HR 2.05 ON 4- 5

SNOW, ICE PELLETS, HAIL
TOTAL MONTH: 0.0 INCH
GRTST 24HR 0.0
GRTST DEPTH: 0

SYMBOLS USED IN COLUMN 16

1 = FOG OR MIST
2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
3 = THUNDER
4 = ICE PELLETS
5 = HAIL
6 = FREEZING RAIN OR DRIZZLE
7 = DUSTSTORM OR SANDSTORM: VSBY 1/2 MILE OR LESS
8 = SMOKE OR HAZE
9 = BLOWING SNOW
X = TORNADO

[NO. OF DAYS WITH]

MAX 32 OR BELOW: 0
MAX 90 OR ABOVE: 0
MIN 32 OR BELOW: 0
MIN 0 OR BELOW: 0

[WEATHER - DAYS WITH]

0.01 INCH OR MORE: 10
0.10 INCH OR MORE: 4
0.50 INCH OR MORE: 4
1.00 INCH OR MORE: 2

[HDD (BASE 65)]

TOTAL THIS MO. 57
DPTR FM NORMAL 23
TOTAL FM JUL 1 57
DPTR FM NORMAL 25

CLEAR (SCALE 0-3) 18
PTCLDY (SCALE 4-7) 9
CLOUDY (SCALE 8-10) 3

[CDD (BASE 65)]

TOTAL THIS MO. 93
DPTR FM NORMAL -40
TOTAL FM JAN 1 1017
DPTR FM NORMAL -11

[PRESSURE DATA]

HIGHEST SLP 30.28 ON 28
LOWEST SLP 29.79 ON 30

[REMARKS]
#FINAL-09-22#